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(71) Applicant (*for all designated States except US*):
TRUSTEES OF BOSTON UNIVERSITY [US/US];
One Sherborn Street, Boston, MA 02215 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **PORCO, John, A.**
[US/US]; 270 Russell Road, Chestnut Hill, MA 02467
(US). **GERARD, Baudouin** [FR/US]; 31 Gardner Street,
Apt. 10, Allston, MA 02134 (US). **JONES, Guilford**
[US/US]; 165 Bishops Forest Drive, Waltham, MA 02452
(US).

(74) Agent: **JARRELL, Brenda, Herschbach**; Choate, Hall
& Stewart, LLP, 53 State Street, Boston, MA 02109 (US).

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(54) Title: SYNTHESIS OF ROCAGLAMIDE NATURAL PRODUCTS VIA PHOTOCHEMICAL GENERATION OF
OXIDOPYRYLIUM SPECIES

(57) Abstract: The present invention provides new strategies for the synthesis of compounds of the rocaglamide family and re-
lated natural products. In particular, the new biomimetic synthetic approach involves photochemical generation of an oxidopyrylium
species from a 3-hydroxychromone derivative followed by 1,3-dipolar cycloaddition of the oxidopyrylium species to a dipolarophile.
This approach can be used for the formation of adducts containing an aglain core structure. Methods for the conversion of aglain
core structures to aglain, rocaglamide and forbaglin ring systems are also provided. The present invention also relates to the use of
rocaglamide/aglain/forbaglin derivatives for the manufacture of medicaments for use in the treatment of cancer or cancerous condi-
tions, disorders associated with cellular hyperproliferation, or NF-κB-dependent conditions.

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